**Chemistry**

**Atomic Structure Date:\_\_\_\_\_\_\_\_\_\_ Name:\_\_\_\_\_\_\_\_\_\_\_\_\_**

**1.The 3 particles of the atom are: Their respective charges are:**

a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.**The number of protons in one atom of an element determines the atom’s \_\_\_\_\_\_\_\_\_\_\_\_\_.

**3.**The atomic number tells you the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in a neutral atom of that element. The atomic number gives the “identity “ of an element as well as its location on the Periodic Table. No two different elements will have the \_\_\_\_\_\_\_\_\_\_\_\_\_\_atomic number.

**4.**The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of an element is the average mass of an element ’s naturally occurring atom.

**5.**The \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of an element is the total number of protons and neutrons in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the atom.

**6.Give the symbol and number of protons in one atom of:**

Lithium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bromine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Iron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Copper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mercury \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Krypton \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Helium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.Name the symbol for the particle(element, cation, anion) which has the following numbers of particles:**

a.26 electrons,26 protons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b.56 protons, 54 electrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. 9 protons, 10 electrons\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d.20 protons(neutral atom) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e. 18 electrons(neutral atom)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8** .**If you know only the following information can you always determine what the element is? (Yes/No).**

a. number of protons \_\_\_\_\_\_\_\_\_\_\_

b.number of neutrons\_\_\_\_\_\_\_\_\_\_\_

c.number of electrons in a neutral atom\_\_\_\_\_\_\_\_\_\_\_

d.number of electrons\_\_\_\_\_\_\_\_\_\_\_